Solving Your Interoperability Issues

How to Integrate Data and Not Break The Bank

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About Me, Laura Stewart

- Healthcare technology veteran with 12 years in leadership at Cerner.
- Led Cerner's Data & Engineering Consulting Professional Services 100+ person team.
- Drove strategy for moving 100's of petabytes of data across hundred of customers including VA.
- Joined Healthjump in 2022, leads a delivery team that managers over 1,000 active integrations.

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Our Agenda Today

We'll cover:

- ❏ Defining your use case for the data
- ❏ Picking the right technology
- ❏ Evaluating data consistency and completeness

At the end, you'll have tips on how to keep a data integration project **on track** and **on time**.

Having a well-defined use case is the first thing you need to solve your interoperability issues.

POLLING QUESTION

What best represents the interoperability need you're trying to solve?

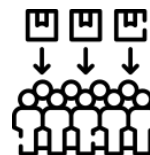# Start With the Use Case

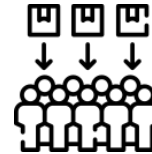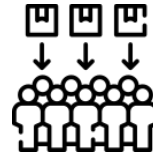| What is the direction of data?	At what frequency do you need the data?	Does this need to be a standards supported item?	Are users documenting the data in a standards supported workflow?	Who is the consumer of the data?	Does the data need to be cleansed? Mapped? Transformed?	What actions are taken once the data is received?
-Uni Directional -Bi - Directional	-One-time -Quarterly /Monthly/Weekly -Daily -Near Real-Time -Real time	-Yes -No -Partially	-Yes -No -Partially	-Operations -EHR/PM User -Reporting Entity -Payer -Consumer	-Yes -No -Partially	-Care -Insights -Research -Reports

Use Case Example 1 - Patient Engagement

As a practice/facility, I want to notify patients of upcoming appointments and send post appointment surveys so that patients receive the best service possible.

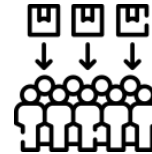| Direction	Frequency	Standards	Workflows	Consumer	Transformations	Actions
- Extract Demographic, Schedules, Encounter Info - Send confirmation, reminders, and surveys	- Daily	- Partially	- Most likely	- Patient	- Appointment - Encounter - Language - Phone Types	- Patient confirms or rescheduled appointment - Action taken on feedback

Use Case Example 2 - OB Care Plans

As a practice/facility, I want to extract clinical data and send evidence based care plans for high-risk pregnancies.

Direction	Frequency	Standards	Workflows	Consumer	Transformations	Actions
- Extract Demographic, Schedules, Discrete Encounter Info - Display suggested care plans	- Daily -Near Real Time - Real Time	- Partially	- Unlikely	- Provider	- Pregnancy History - Labs - Problems - Diagnosis - Other Clinical Data to Std Data Model - Nomenclature Maps	- Provider reviews suggested plan and takes action

Use Case Example 3 - ACO/VBC

As a ACO/VBC Organization, I want to extract all clinical and claims data to do measure reporting.

Direction	Frequency	Standards	Workflows	Consumer	Transformations	Actions
- Extract Demographic, Schedules, Discrete Encounter Information, Claims, Remits - Display Insights to Clinician - Submit Data to Payer	- Daily or Near Real Time	- Partially	- Unlikely	- Provider/ Clinicians -Payer	-All data to standard data model - Nomenclature Maps - Payer output Specification	- Provider reviews insights and takes action - data in right format to send to payer

Understand the difference in how the different technologies can support your use case.

POLLING QUESTION

How are you currently doing integrations?

Deep Dive on ACO Use Case - Technology

- Should I build or buy?
- How secure is the data movement?
- Is there QA of ingestion site at onboarding?
- How will you monitor data post go-live?
- Is other vendor involvement needed?

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Deep Dive on ACO Use Case - Build vs Buy

01 # of Connections you plan on doing in next two years
- Both number of connections and data domains needed will drive complexity

02 Annual spend on products to maintain those connections
- Interface Engine
- Data warehouse
- Support/PM Ticketing System

03 How many FTE's you will need to build and maintenance them
- Engineering
- Security Officer
- PM
- Support
- Partnership development for EHR vendor relationships

04 How will you train and grow the engineering team
- Clinical workflow knowledge
- Product knowledge
- Data mining

05 How will you handle vendor relationships if using standards
- HL7 /FHIR/API integrations require agreements with every EHR and practice level agreements

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Evaluating Technologies

Interoperability Method	Advantages	Limitations	Vendor Needed	Time
HL7	Common industry spec knowledge, bi-directional	Connectivity can take days or weeks, requires Interface Engine and vendor involvement, only supported workflows pull data, not suited for bulk data pulls	Yes	3-6 months
FHIR	Common industry spec knowledge, bi-direction	Vendor involvement, only supported workflows pull data, not suited for bulk data	Yes	3-4 months
CCD	Common industry spec knowledge	Only supported workflows pull data, most systems only support CCD data rec	Yes	1 month
Direct Database Extraction	Any table can be extracted, bi-directional, bulk and incremental data	N/A	No	< 1 week
Proprietary Vendor API	Bi-directional	Not available from every vendor, limited selection of data, must be approved , only supported workflows pull data	Yes	< 1 week w/data parnter 3-4 months for initial app approval

Evaluating Technologies

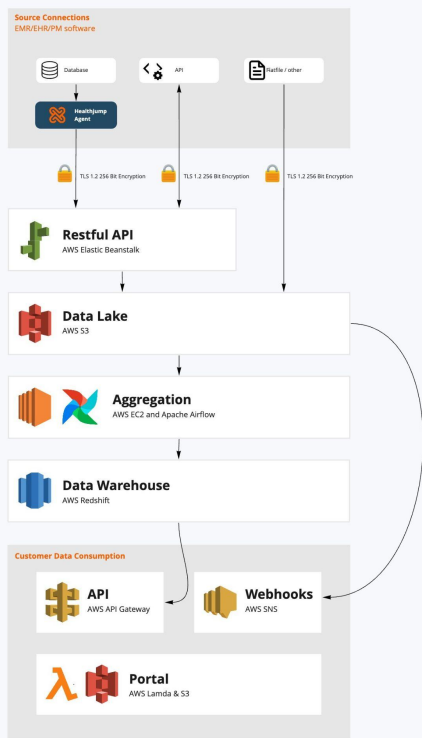| Interoperability Method	Advantages	Limitations	Vendor Needed	Time
Read-only insights	Great way to get infromatiation in front of end users, Flexible content	Data is viewable but not part of EHR, not part of the legal record printouts.	No	<1 Month to deploy for 1000's of users/sites

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Deep Dive on ACO Use Case - Security of Data Movement

- Data flow and storage is critical to success.
- Look for a vendor that is going to store the data and give you access to it.
- Ask what options the vendor has for sending data such as API, Webhooks, Unloads, FHIR or HL7.
- Ask how frequently data is pulled, or posted.

Deep Dive on ACO Use Case - Pre/Post Go Live QA

- How does the vendor validate data pre-integration go live?
- What do they normalize to value code sets vs pass along and make you do the work?
- Will they let you know if the clinic/hospital has bad data?
- Once live, how do they let you know there is a problem?
- What kind of monitoring will they do for you?

Do not forget: support after implementation go-live. Healthcare data is not set and forget.

Deep Dive on ACO Use Case - Vendor Involvement

- It's rare you can set up a HL7/FHIR connection without the EHR vendor.
- Know their implementation backlog timeline to start work and duration of projects.
- Be prepared for delays.

Evaluate vendors based on how they ensure data quality, both completeness and consistency.

POLLING QUESTION

What are you paying per integration per year?

Questions and Answers

Stop by our VBCExhibitHall.com Virtual Booth

Thank You

Got more questions? Reach out to:
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